

CLAIMS

What is claimed is:

- 5 1. A self positioning astragal seal, for use with an astragal having a bolt having a
bolt retracted position and a bolt extended position, comprising:
a seal block having a catch and a hole,
said bolt slidably disposed through said hole,
said catch catching a portion of said bolt and holding said seal block in
10 a seal block retracted position when said bolt is in said bolt retracted
position and releasing said seal block when said bolt is in said bolt
extended position;
spring means forcing said seal block into a seal block extended position
when said seal block is released.
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2. The self positioning astragal according to claim 1, wherein said spring means
comprises at least one compression spring.
3. The self positioning astragal according to claim 1, wherein said seal block catch
20 comprises a shoulder.
4. The self positioning astragal according to claim 1, wherein said bolt portion
comprises a shoulder.

5. The self positioning astragal according to claim 3, wherein said bolt portion comprises a shoulder,
- 5 said seal block shoulder catching said bolt shoulder and holding said seal block in said seal block retracted position when said bolt is in said bolt retracted position and releasing said seal block when said bolt is in said bolt extended position;
6. The self positioning astragal according to claim 1, wherein said seal block has
- 10 an end seal.
7. The self positioning astragal according to claim 1, wherein said seal block has a face seal.
8. The self positioning astragal according to claim 6, wherein said seal block has a
- 15 face seal.
9. The self positioning astragal according to claim 1, wherein said self positioning astragal seal is installed on said astragal.
- 20 10. The self positioning astragal according to claim 9, wherein said astragal is affixed to a door having a door frame, said door frame having a header and a sill.

11. The self positioning astragal according to claim 10, wherein said seal block has an end seal.
- 5 12. The self positioning astragal according to claim 11, wherein said end seal abuts said sill, when said seal block is in said seal block extended position.
13. The self positioning astragal according to claim 11, wherein said end seal abuts said header, when said seal block is in said seal block extended position.
- 10 14. The self positioning astragal according to claim 1, wherein said astragal is affixed to a door having a door frame, said door frame having a header and a sill, one said self positioning astragal is installed on said astragal adjacent said sill and another said self positioning astragal is installed on said astragal adjacent said header.
- 15 15. The self positioning astragal according to claim 6, wherein said astragal is affixed to a door having a door frame, said door frame having a header and a sill, one said self positioning astragal is installed on said astragal adjacent said sill and another said self positioning astragal is installed on said astragal adjacent said header;
- 20 said end seal of said self positioning astragal seal adjacent said sill abuts said sill, when said seal block is in said seal block extended position;

said end seal of said self positioning astragal seal adjacent said header abuts
said header, when said seal block is in said seal block extended position;

16. The self positioning astragal according to claim 12, wherein said seal block
5 extended position is automatically adjusting

17. The self positioning astragal according to claim 13, wherein said seal block
extended position is automatically adjusting

10 18. The self positioning astragal according to claim 15, wherein said seal block
extended position is automatically adjusting

19. The self positioning astragal according to claim 9, wherein said astragal has a
bolt retraction stop.

15 20. The self positioning astragal according to claim 9, wherein said astragal has a
bolt extension stop.

21. The self positioning astragal according to claim 9, wherein said astragal has a
20 seal block retraction stop and a seal block extension stop;
said seal block retraction stop limiting the retracted extent of travel of said
seal block to said seal block retracted position;

said seal block extension stop limiting the released extent of travel of said seal block when said seal block is released.

5 22. The self positioning astragal according to claim 9, wherein said seal block has a guide block adapted to guide said seal block between said seal block retracted position and a seal block released position when said seal block is released.

 23. The self positioning astragal according to claim 1, wherein said seal block has a guide block adapted to mount said self positioning astragal seal to said astragal.

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 24. The self positioning astragal according to claim 23, wherein said guide block is adapted to guide said seal block between said seal block retracted position and a seal block released position when said seal block is released.

15 25. The self positioning astragal according to claim 23, wherein said spring means comprises at least one compression spring abutting at least one portion of said seal block and abutting at least one portion of said astragal.

 26. The self positioning astragal according to claim 24, wherein said spring means
20 comprises at least one compression spring abutting at least one portion of said seal block and abutting at least one portion of said astragal.

27. The self positioning astragal according to claim 1, wherein said seal block has a guide block adapted to slidably maintain said seal block about said astragal and guide said seal block between said seal block retracted position and a seal block released position when said seal block is released.

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28. The self positioning astragal according to claim 1, wherein said astragal has an elongated guide and seal block has a guide block adapted to slidably maintain said seal block about said elongated guide and guide said seal block between said seal block retracted position and a seal block released position when said seal block is released.

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29. The self positioning astragal according to claim 28, wherein said spring means comprises at least one compression spring abutting at least one portion of said seal block and abutting at least one portion of said elongated guide.

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30. The self positioning astragal according to claim 28, wherein said elongated guide has a substantially centrally disposed longitudinal channel and opposing longitudinal side channels;

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said bolt slidable within said substantially centrally disposed longitudinal channel.

31. The self positioning astragal according to claim 30, wherein said side channels have stops therein and said spring means comprises compression springs; said compression springs abutting said seal block and abutting said stops.

5 32. The self positioning astragal according to claim 31, wherein said guide block has compression spring guide holder, said compression springs mounted about said compression spring holders.

10 33. The self positioning astragal according to claim 28, wherein said elongated guide has a seal block retraction stop and a seal block extension stop; said seal block retraction stop limiting the retracted extent of travel of said seal block to said seal block retracted position; said seal block extension stop limiting the released extent of travel of said seal block when said seal block is released;

15 34. The self positioning astragal according to claim 33, wherein said guide block has a T shaped member adapted to guide said seal block between said seal block retracted position and said seal block released position when said seal block is released.

20 35. The self positioning astragal according to claim 1, wherein said astragal has spring means and a latching mechanism having a latch;

said latching mechanism retracting said bolt into said bolt retracted position and compressing said spring means when said latch is retracted to a latch retracted position;

5 said latching mechanism releasing said bolt and said compression means forcing said bolt into said bolt extended position and said latch into a latch released position when said latch is released.

36. The self positioning astragal according to claim 35, wherein said astragal spring means comprises a compression spring.

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37. The self positioning astragal according to claim 9, wherein said astragal has spring means and a latching mechanism having a latch;

15 said latching mechanism retracting said bolt into said bolt retracted position and compressing said spring means when said latch is retracted to a latch retracted position;

 said latching mechanism releasing said bolt and said compression means forcing said bolt into said bolt extended position and said latch into a latch released position when said latch is released.

20 38. The self positioning astragal according to claim 37, wherein said astragal spring means comprises a compression spring.

39. The self positioning astragal according to claim 28, wherein said astragal has
spring means and a latching mechanism having a latch;
said latching mechanism retracting said bolt into said bolt retracted position
and compressing said spring means when said latch is retracted to a latch
5 retracted position;
said latching mechanism releasing said bolt and said compression means
forcing said bolt into said bolt extended position and said latch into a latch
released position when said latch is released.

10 40. The self positioning astragal according to claim 39, wherein said elongated
guide has a substantially centrally disposed longitudinal channel and opposing
longitudinal side channels;
said bolt slidable within said substantially centrally disposed longitudinal
channel.

15 41. The self positioning astragal according to claim 40, wherein said side channels
have stops therein and said self positioning astragal seal spring means
comprises compression springs;
said self positioning astragal seal compression springs abutting said seal
20 block and abutting said stops.

42. The self positioning astragal according to claim 40, wherein said astragal spring means comprises a compression spring and said substantially centrally disposed longitudinal channel has said astragal compression spring therein.
- 5 43. The self positioning astragal according to claim 41, wherein said astragal spring means comprises a compression spring and said substantially centrally disposed longitudinal channel has said astragal compression spring therein.
- 10 44. The self positioning astragal according to claim 1, wherein said seal block is molded.
45. The self positioning astragal according to claim 1, wherein said seal block of an acetal material.
- 15 46. The self positioning astragal according to claim 6, wherein said end seal is of cellular material.
47. The self positioning astragal according to claim 6, wherein said end seal is of closed cell neoprene sponge material.
- 20 48. The self positioning astragal according to claim 7, wherein said face seal is of cellular material.

49. The self positioning astragal according to claim 7, wherein said face seal is of closed cell neoprene sponge material.

50. The self positioning astragal according to claim 9, wherein said astragal is a locking astragal, which releasably locks said bolt into said bolt extended position.